



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,780	02/20/2002	Lin Xu	4208-4063	3643

7590 09/16/2003
MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, NY 10154-0053

EXAMINER

COSIMANO, EDWARD R

ART UNIT PAPER NUMBER

3629

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,780

Applicant(s)

XU ET AL.

Examiner

Edward R. Cosimano

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Applicant should note the changes to patent practice and procedure:
 - A) effective December 01, 1997 as published in the Federal Register, Vol 62, No. 197, Friday October 10, 1997;
 - B) effective November 07, 2000 as published in the Federal Register, Vol 65, No. 54603, September 08, 2000; and
 - C) Amendment in revised format, Vol. 1267 of the Official Gazette published February 25, 2003.
2. The drawings are objected to because
 - A) the following errors have been noted in the drawings:
 - (1) The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
 - (a) 132, 134, 135 & 136 of fig. 1D as described in the paragraph between page 15, lines 21, and page 16, line 5, "Figure 1D is a network diagram ... node 130, directly but via bi-directional network 106."
 - (b) 110, 140, 142, 143, 144, 146, 150, 151, 152, 160, 165, 170, 171, 172, 173, as used to designated features of the invention the paragraphs between:
 - (b)(1) page 24, line 1, and page 30, last line, "The packets that ... the entry to charging database 146 appears as follows:"; and
 - (b)(2) page 33, line 5, and page 44, line 9 from the end of the page, "Figures 3C and 3D are exemplary ... without storing the charging data in charging database 146."
- 2.1 A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
- 2.2 Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the

examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

3. The disclosure is objected to because of the following informalities:

A) applicant must update:

(1) the application data on page 1 in the paragraph "This application for letters ... Office on December 06, 2001.";

with the current status of each of the referenced applications, e.g., --now abandoned--, or --now patent #?--, or --which is abandoned and now serial number #?--, etc.

B) the following errors have been noted in the specification:

(1) the drawings do not depict what is described in regard to reference numbers 110, 140, 142, 143, 144, 146, 150, 151, 152, 160, 165, 170, 171, 172 & 173, as used and describe in the paragraphs between:

(a) page 24, line 1, and page 30, last line, "The packets that ... the entry to charging database 146 appears as follows:"; and

(b) page 33, line 5, and page 44, line 9 from the end of the page, "Figures 3C and 3D are exemplary ... without storing the charging data in charging database 146.";

since it appears that the wrong reference numbers have been used in these paragraphs when designating the features of the invention.

(2) as can be seen in figs. 1A, 1B, 1C, 1D, 1E, 1F, 1G, 2A, 2B, 2C & 2D and from the context of the paragraphs of the disclosure between:

(a) page 9, line 8, and page 23, line 11, "Figure 1A is a ... updated decryption key to multicast security client 113."; and

(b) page 31, line 1, and page 33, line 3, "The following examples ... to disjoin user terminal 110 from node A.";

reference numbers 110, 111, 112, 113, 117, 118, 120, 121, 122, 123, 124, 125, 126, 130, 131, 132, 133, 134, 135, 136, 140, 150, 170, 171 & 172 have been used to designate various features of the invention, however, from the context of the paragraphs between:

(a) page 24, line 1, and page 30, last line, "The packets that ... the entry to charging database 146 appears as follows:"; and

(b) page 33, line 5, and page 44, line 9 from the end of the page, "Figures 3C and 3D are exemplary ... without storing the charging data in charging database 146.";

reference numbers 110, 140, 150, 170, 171 & 172 have been used twice to designate different and distinct features of the invention while reference numbers 142, 143, 144, 146, 151, 152, 165 & 173 have been used to designate the same previously designated features of the invention multiple times.

Appropriate correction is required.

4. The specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification or drawings. Applicant should note the requirements of 37 CFR § 1.74, § 1.75, § 1.84(o,p(5)), § 1.121(a)-1.121(f) & § 1.121(h)-1.121(i).

5. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

5.1 Claims 21-30, 41 & 42 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter.

5.1.1 The instant claims recite a system/device, (claims 21-30, 41 & 42), which has a practical application in the technological arts, and which does not merely define either a computer program, a data structure, non-functional descriptive material, (i.e. mere data) or a natural phenomenon. Hence, the instant claims merely define device that contains a series of steps that could be but are not necessarily to be performed on a computer.

5.1.2 It is further noted that applicant has not recited a specific machine since the operations recited in the claim are merely to illustrate the operations of the instant invention since these operations are not in fact implemented by a processor/computer. Hence, applicant envisions

the invention as recited in claims 21-30, 41 & 42 as a disembodied storage device, i.e. memory, that stores a computer program as a non-functional data structure. Such a disembodied storage device is not a specific machine because:

A) it is not associated with a computer in such a way as to cause the computer to operate in a specific manner, (note In re Beauregard 35 USPQ2d 1383 (CAFC 1995) and the associated claims of U.S. Patent 5,710,578); and

B) a memory alone can not perform the functions recited within the claims.

Therefore, the recited disembodied storage device, which itself can not perform the functions recited within the claims as the invention, is inoperative and lacks utility for the purpose of the invention.

5.1.3 In view of the above, the invention recited in claims 21-30, 41 & 42, merely describes an abstract idea of a disembodied storage device, i.e. memory, that stores a computer program as a non-functional data structure, since a disembodied storage device by itself can not produce a concrete and tangible result by performing the functions recited within the claims as the invention (State Street Bank & Trust Co. v. Signature Financial Group Inc. 47 USPQ2d 1596 (CAFC 1998)). Hence, claims 21-30, 41 & 42 do not have a claimed practical application, since the disembodied storage device is inoperative and therefore lacks utility for the purpose of the invention.

5.1.4 Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. Cf. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability). Common situations involving nonfunctional descriptive material are:

- a computer that differs from the prior art solely with respect to nonfunctional descriptive material that cannot alter how the machine functions (i.e., the descriptive material does not reconfigure the computer), or
- a process that differs from the prior art only with respect to nonfunctional descriptive material that cannot alter how the process steps are to be performed to achieve the utility of the invention.

5.1.5 Hence, claims 21-30, 41 & 42 are directed to non-statutory subject matter.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6.1 Claims 1-6, 8-16, 18-26, 28-36 & 38-42 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by either Cramer et al (5,606,497) or Isono (6,011,841).

6.2 Claims 1-42 are rejected under 35 U.S.C. § 102(a) as being clearly anticipated by Arai (2002/0002470).

6.3 Claims 1-6, 8-16, 18-26, 28-36 & 38-42 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by either Kondo (2002/0062289) or Lee (6,424,704).

6.4 Claims 1-42 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Takatori et al (2002/0077981).

6.5 In regard to the term “multicast” as used in the pending claims, since the type of broadcast does not affect how the claimed invention as a whole would operate, the type of broadcast, that is a “multicast” is considered for the purposes of any prior art rejection to be non-function descriptive material that may not be used to define a patentable distinction, In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability). Common situations involving nonfunctional descriptive material are:

- a process that differs from the prior art only with respect to nonfunctional descriptive material that cannot alter how the process steps are to be performed to achieve the utility of the invention.

6.5.1 In regard to claims 1-6, 8, 11-16, 18, 21-26, 28, 31-36, 38, 41 & 42, either Cramer et al ('497) or Isono ('841) or Arai ('470) or Kondo ('289) or Lee ('704) or Takatori et al ('981) disclose a system in which a billable service is provided to subscribing customers. Each time a customer requests the service, a first time is logged in a database, and when the customer ends the service, an end time is logged in the database. After the service has been ended/terminated, the system of either Cramer et al ('497) or Isono ('841) or Arai ('470) or Kondo ('289) or Lee ('704) or Takatori et al ('981) uses the logged start and end times for each request and use of the billable service to determine the total billable charges to the customer associated with each of the requests and uses of the billable service.

6.5.2 In regard to the billing of the customer, either Cramer et al ('497) or Isono ('841) or Arai ('470) or Takatori et al ('981) uses a remote billing computer to prepare the customer's bill for requesting and using the billable service.

6.5.2 In regard to the time slots of claims 9, 10, 19, 20, 29, 30, 39 & 40, since the system of either Cramer et al ('497) or Isono ('841) or Arai ('470) or Kondo ('289) or Lee ('704) or Takatori et al ('981) measures the time interval/period/duration of the user connection and use of the billable service and the system of Cramer et al ('497) can not distinguish time intervals

Art Unit: 3629

that are less than the time registered by the system clock, the time period of Cramer et al ('497) can only begin/end at the smallest available clocked time slots.

6.5.3 In regard to claims 7, 17, 27 & 37, either Arai ('470) or Takatori et al ('981) also bills the customer based on the volume of information requested by the customer during each of the requests and uses of the billable service.

7. Although relates application 10/008,334 has been considered for the purposes of possible double patenting issues, it is noted that there is no indication that this application was publically known by others within the meaning of 35 U.S.C. § 102 on or before the critical date of February 02, 2001. Hence, this application has not been considered as a prior art reference within the meaning of either 35 U.S.C. § 102 or 35 U.S.C. § 103.

8. The examiner has cited prior art of interest, for example:

A) either Laudahn (DE4331432 A1) or the PCNetter article or Nakao et al (6,363,137) disclose a billing system that monitors and records the start and end times of a request for a billable service in order to correctly bill a customer for the customer's use of the billable service.

9. Applicant must supply a copy of the prior art mentioned in:

A) the paragraph between page 2, line 14, and page 3, line 2, "IP multicast is an extension to the standard IP network-level protocol. RCF 1112, titled "Host Extensions for IP Multicasting" and authored by Steve Deering in 1999, ... single group address on a host.";

B) the paragraph at page 3, lines 3-7, "Multicast communications ... for Comments (RFC) 2236, November 1997, describe IGMP.";

C) the paragraph between page 24, line 18, and page 25, line 2, "The join message sent ... IEEE/ACM Transactions on Networking, February 2000.".

10. The shortened statutory period of response is set to expire 3 (three) months from the mailing date of this Office action.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Cosimano whose telephone number is (703) 305-9783. The examiner can normally be reached Monday through Thursday from 7:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss, can be reached on (703)-308-2702. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

11.1 The fax phone number for UNOFFICIAL/DRAFT FAXES is (703) 746-7240.

11.2 The fax phone number for OFFICIAL FAXES is (703) 872-9306.

11.3 The fax phone number for AFTER FINAL FAXES is (703) 872-9306.

09/07/03


Edward R. Cosimano
Primary Examiner A.U. 3629